

## **ABSTRACT**

A spectrum analyzer is provided. The spectrum analyzer includes an input adapted to receive an input signal and a mixer, coupled to the input. The mixer is adapted to produce a down converted signal from the input signal. The spectrum analyzer further includes an adjustable decimation circuit, coupled to the mixer, that selectively decimates the down converted signal, a decoder, coupled to the adjustable decimation circuit, that measures power in the decimated signal, and a control circuit, coupled to the mixer, that selectively controls the frequency of the down converted signals from the mixer to measure power over a frequency spectrum of the input signal.